

FIRST AID

IN THE

HOME

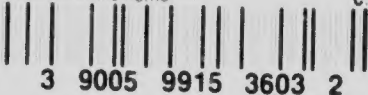


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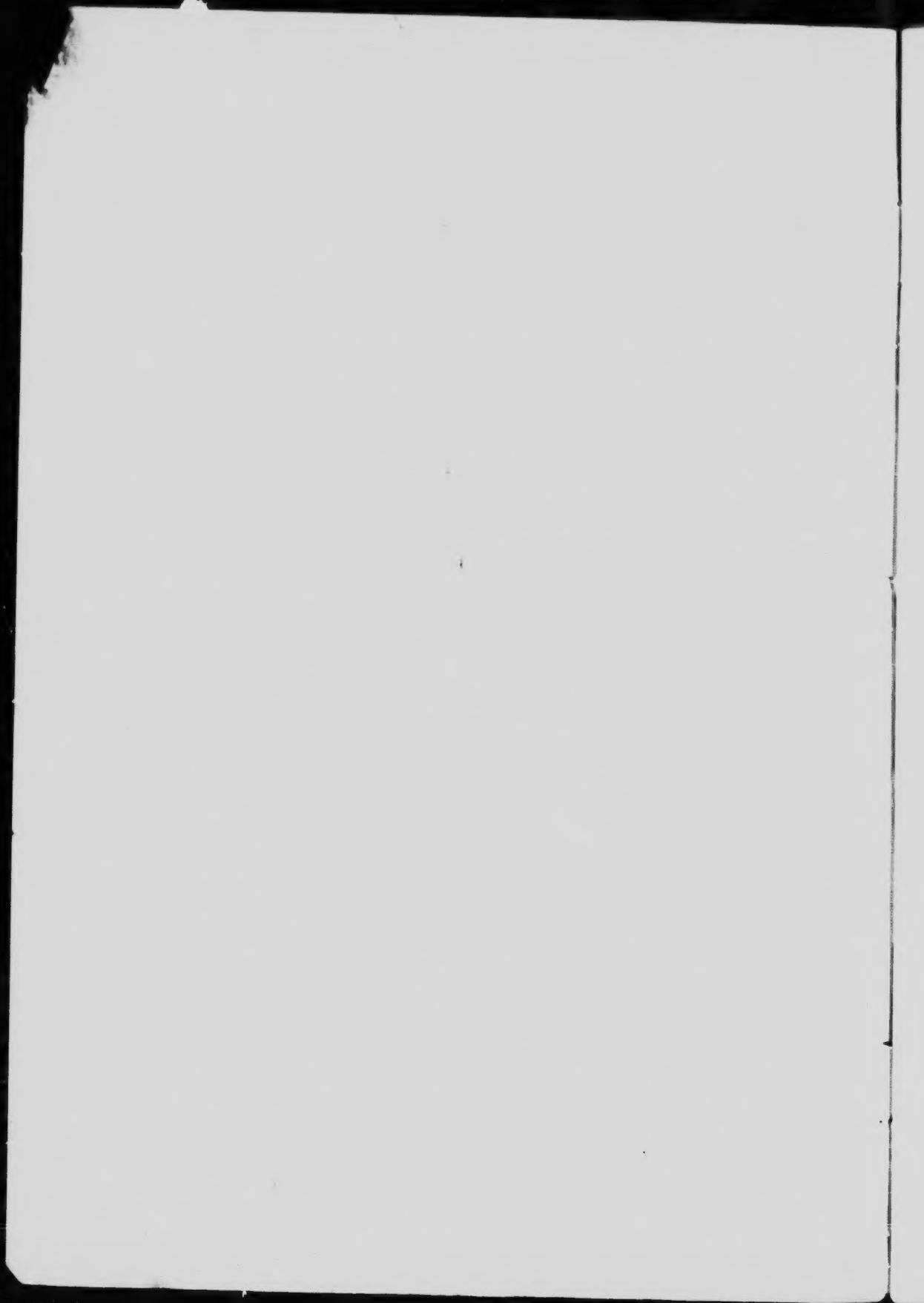
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METROPOLITAN LIFE INSURANCE COMPANY
Canadian Head Office—Ottawa

FIRST AID IN THE HOME



METROPOLITAN LIFE INSURANCE COMPANY



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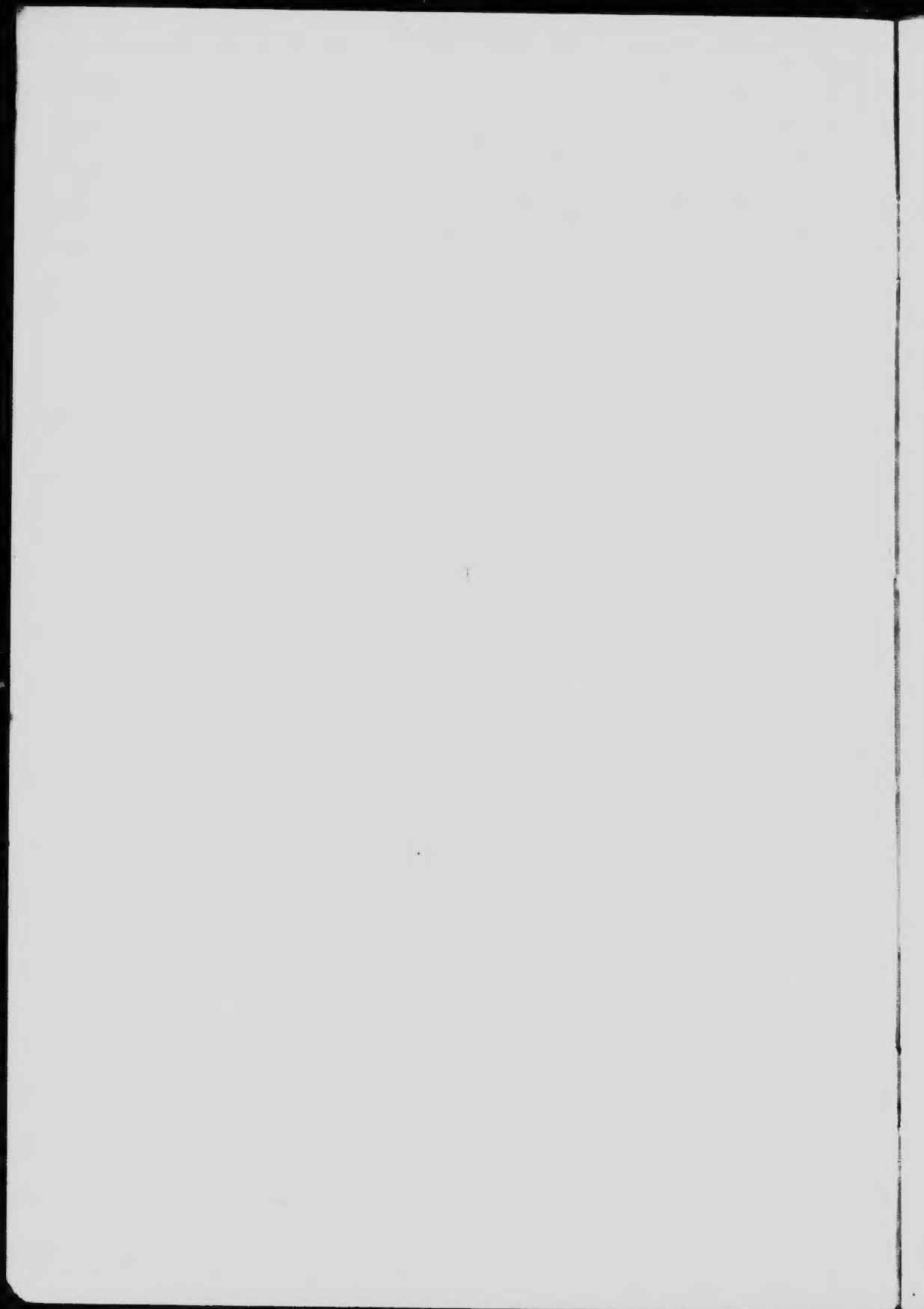
Wise Living Is The Best First Aid to Health

TO be successful and happy we must be well. We should try in every way to improve our health and to prevent sickness and accidents. When, in spite of us, sickness or accidents occur, we should know what to do until the doctor comes to help us.

We can improve our health by proper exercise, eight hours' sleep nightly, plenty of fresh air, sunlight and nourishing food.

We can prevent sickness by avoiding any one who has a contagious disease, and by helping the health authorities to prevent and stamp out epidemics. As many of the most serious kinds of sickness begin gradually, it is a good plan to have a health examination by the doctor every year or oftener, whether we are sick or not. Then if our health is in danger, it may be protected before it is too late.

Not only can most accidents be prevented, but much illness also, by wise home care, and prompt medical attention. Household remedies if properly used, have their place, though it is important to know when the doctor should be called.



First Aid in the Home

THE ONLY SAFE USE OF HOUSEHOLD REMEDIES

IN some homes are to be found shelves crowded with drugs with which members of the family dose themselves and each other without the doctor's advice, in the hope of curing common disturbances of health. Some of these are left-over medicines, prescribed during a past illness; others are remedies recommended by the neighbors; some are patent medicines bought on no other authority than that of advertisements or the advice of a drug store clerk who wants to sell them. Such a collection is expensive, ineffective, and often dangerous. As a matter of fact, the number of drugs which need be kept on hand in the home is very small. (See list at back of this book). Most minor illnesses are better treated without drugs, and these, when needed, had better be prescribed by the doctor.

Some of the illnesses for which people are accustomed to treat themselves are discussed briefly below. Note that in all cases in which the trouble does not yield readily to simple measures, a doctor should be consulted.

1. **Headache**—Headache is not a disease by itself; but a sign that some part of the body is not working properly. It is useless to drug yourself with headache medicines which do not get at the cause of the headache, and are often actually poisonous. The best home treatment is rest. If you have a headache, see that your bowels are working properly; take one or two tablespoonfuls of castor oil if you are constipated. Lie down in a quiet place and try to sleep. An ice-cap on the forehead or a cloth kept cold by being frequently wrung out of ice water, will often help. If you have repeated headaches, consult your doctor so that he may find out what is causing them and advise you accordingly.

2. **Earache**—Always consult a doctor at once for earache or for a discharging ear. Deafness may result if you neglect this. Hot cloths or a hot water bottle on the ear will often give temporary relief until the doctor comes. Do not put anything into the ear.

3. **Nosebleed**—This may be due to a slight injury or may come on without an injury, especially in children. Slight nosebleed does no harm and does not require treatment. It may prove difficult to stop severe bleeding, though this is not usually the case. Put the patient in a chair with head hanging back. Loosen collar and apply cold applications to the back of the neck. This can be done by means of a cloth wrung out in cold water. A roll of paper between the gum and the upper lip will help, as will pinching the soft part of the nose. If bleeding continues, you need a doctor or an ambulance at once. While waiting, make a cotton plug and push it with the end of a pencil into the nostril from which the blood is coming.

4. **Toothache**—Go to your dentist as soon as possible. A toothache is a sign that the hard part of the tooth has decayed, leaving the nerve exposed. If it is not treated, the destruction of the tooth will continue, the tooth and its nerve will die, and the tooth may become a hiding place for germs which may poison the whole body. A drop of oil of cloves on a bit of cotton in the aching cavity may give temporary relief from pain, but will not cure the decayed tooth. Do not delay seeing your dentist. See him at least once a year even if your teeth seem all right.

5. **Colds**—If you feel a cold coming on, you may sometimes be able to head it off in the following manner. If you are constipated, take one or two tablespoons of castor oil. Take a hot bath and a glass of hot lemonade and go immediately to bed. The resulting sweat may help to head off the cold. Do not allow your skin to become chilled while it is perspiring. This treatment is especially good at the very onset of a cold. Rest, a light diet, plenty of water are the important things. If the cold in your head does not clear up in a week, or if you have a fever, sore throat, severe cough, or discomfort in the chest, consult your doctor at once. A sore throat should never be neglected. A baby that has croup should be seen by a doctor at once. It is very often a sign of diphtheria.

6. **Upset Stomach**—For a stomach upset with nausea and discomfort in the abdomen, the first thing to do is to get rid of the food substance which is causing the irritation. If the pain is not severe, take one or two tablespoons of castor oil and lie down and rest. A hot water bottle on the abdomen may help. During the rest of the day eat nothing, or only very light food. You should have such upsets very seldom if your diet is a sensible one. Do not eat heartily when you are overtired or nervous, or

just before going to bed. If you have repeated attacks or if the pain is severe, consult your doctor, before taking any medicine, for it may be a sign of more serious trouble.

7. **Diarrhea**—This is due to irritation of the intestines. The treatment is the same as that for upset stomach. If the diarrhea persists, consult a doctor.

8. **Constipation**—Constipation can, in the great majority of cases, be cured if you will faithfully carry out the following directions:

- (a) Do not get into the habit of taking cathartics. The movements which result from them are abnormal.
- (b) Have a regular time for your bowel movement every day. Go to the toilet after breakfast and remain for ten minutes, not straining, but giving your bowels a chance to act.
- (c) Drink plenty of water, especially two glasses of very hot or very cold water on rising. Try to drink six or eight glasses a day.
- (d) Avoid tea, boiled milk, cocoa and cheese. Eat plenty of foods which have some bulk, such as coarse cereals, bran, whole wheat or rye bread, green vegetables and fruits. Cream, olive oil, prunes, figs and dates are helpful.
- (e) Get sufficient sleep and exercise.
- (f) If constipation is not cured by these methods, consult your doctor.

9. **Heartburn**—This is a name for a burning sensation in the chest which comes on from ten minutes to an hour after taking food. It has nothing to do with the heart, but is due to a disturbance in the digestive juices of the stomach. It may often be relieved by a half teaspoonful of soda bicarbonate in water. Avoid tea, coffee and spices. If you have heartburn frequently, consult your doctor.

10. **Dysmenorrhoea**—It is not normal, as many people suppose, for women to have severe pain at the menstrual period. If you have considerable pain, consult your doctor. Do not take drugs without his advice. The best home treatment is rest and heat applied to the abdomen. Advertised remedies do not get at the cause of the pain; many of them are actually poisonous. If you have discharge or bleeding between periods, consult your doctor. If you have any bleeding at all after your periods have stopped coming—at the menopause—see a doctor at once. It may be a sign of cancer of the womb. One out of every eight women dies of cancer.

To prevent cancer of the womb, every woman should have a careful examination by a doctor at the time when her periods cease.

ACCIDENTS—WHEN TO CALL THE DOCTOR

In all cases of serious illness or accident, call the doctor at once. If you cannot get your own doctor, get the best doctor nearest your home. Don't try to doctor yourself or any one for whom you are responsible; it is both dangerous and unjust. You cannot rely upon a patent medicine. Likely it contains drugs which may make you feel better for the time being, although at the same time, your sickness is getting a firmer hold on you. Delay may result in such serious illness that no one can cure you. Call the doctor immediately in case of:

Any serious accident

Unconsciousness

Convulsions

Severe pain in head or abdomen, especially after an injury

Severe sore throat (this may be diphtheria)

A rash with fever (this may be a contagious disease)

HOW TO TREAT EMERGENCIES UNTIL THE DOCTOR COMES

When you are suddenly called upon to take charge of a seriously sick or injured person, keep calm. Examine the patient with the following questions in mind:

First. Is the patient breathing? If not, all other considerations must be disregarded until breathing is brought back.

Second. Is he bleeding dangerously? You must stop the hemorrhage before giving other treatment or the patient may bleed to death.

Third. Is he in a place in which his life is still being endangered? In such a case, he must be moved. Otherwise it is best not to move him until the doctor comes.

In order to make your examination you may have to remove clothing. Cut this off where necessary. Do not let the skin get chilled. In stoppage of respiration, severe hemorrhage or shock, begin without delay to treat the patient according to the following directions. At the same time, if possible, send some one to get a doctor. The important things to consider are:

1. **Patient Not Breathing** (drowning—artificial respiration)—A number of causes for stoppage of breathing in a living person are mentioned in this book. Of these the most frequent are drowning, gas poisoning, and electric shock. Whatever the cause, the treatment is essentially the same. It is called artificial respiration, and consists in forcing the patient's chest to



FIGURE 1—*Correct Position for Patient in Artificial Respiration*

imitate the movements of ordinary breathing, thus expelling the water or gas from the lungs and drawing in air. The method is as follows:

- (a) Quickly feel with your fingers in the victim's mouth and throat and remove any obstructions to breathing, such as tobacco or false teeth. If the mouth is tight shut, pay no attention to it until later. Don't attempt to pry the jaws open. Do not lose a moment's time. Start artificial breathing.
- (b) Lay the patient on his belly, one arm extended directly overhead, the other bent at elbow and with face to one side, resting on the hand or forearm, so that the nose and mouth are free for breathing. (Figure 1).
- (c) Kneel, straddling the patient's hips with knees just below the patient's hip bones. (Figure 2). Put the palms of your hands on the small of the back with the fingers over the ribs, the little finger just touching the lowest rib, the thumb alongside of the fingers; the tips of the fingers just out of sight. (Figure 3).
- (d) While counting one, two, and with arms held straight, swing forward slowly so that the weight of your body is gradually, but not

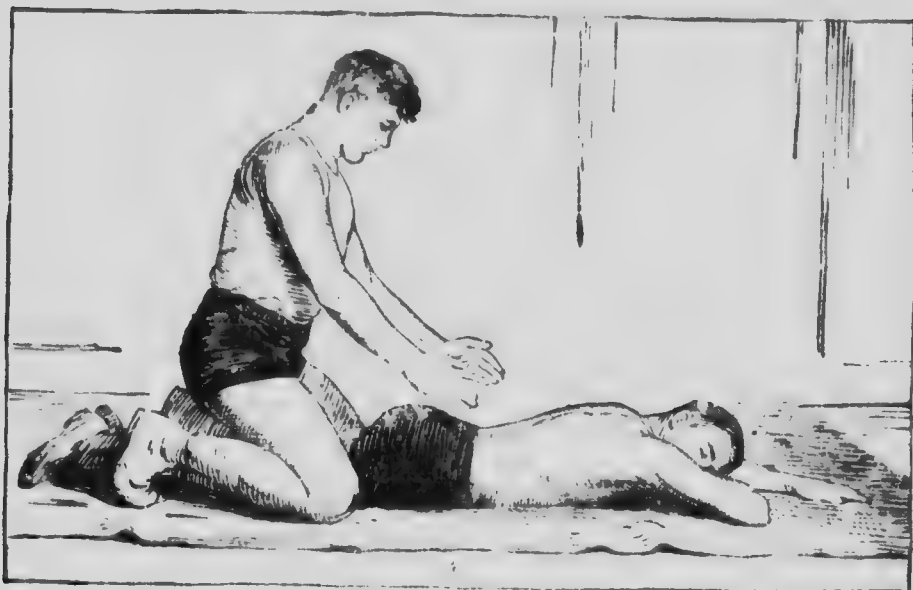


FIGURE 2—Position for Operator before Exerting Pressure

violently, brought to bear upon the patient. (See Figure 3.) This act should take from two to three seconds.

- (e) While counting three, swing backward so as to remove the pressure, thus returning to the position shown in Figure 2.
- (f) While counting four, five—rest.
- (g) Repeat these operations deliberately, swinging forward and backward twelve to fifteen times a minute—a complete respiration in four or five seconds. *Keep time with your own breathing*
- (h) As soon as this artificial respiration has been started, and while it is being continued, an assistant should loosen any tight clothing about the patient's neck, chest or waist. Keep the patient warm. Use blankets or clothing, and possibly, hot water bottles can fully wrapped to prevent burning the patient's skin.
- (i) Continue artificial respiration without interruption until natural breathing is restored, if necessary, four hours or longer, or until the victim's body is wholly stiff and cold. If natural breathing stops after being restored, use artificial respiration again. Men breathing when brought out of gas, or after an electric shock, may suddenly stop breathing. Watch your patient carefully and continually.

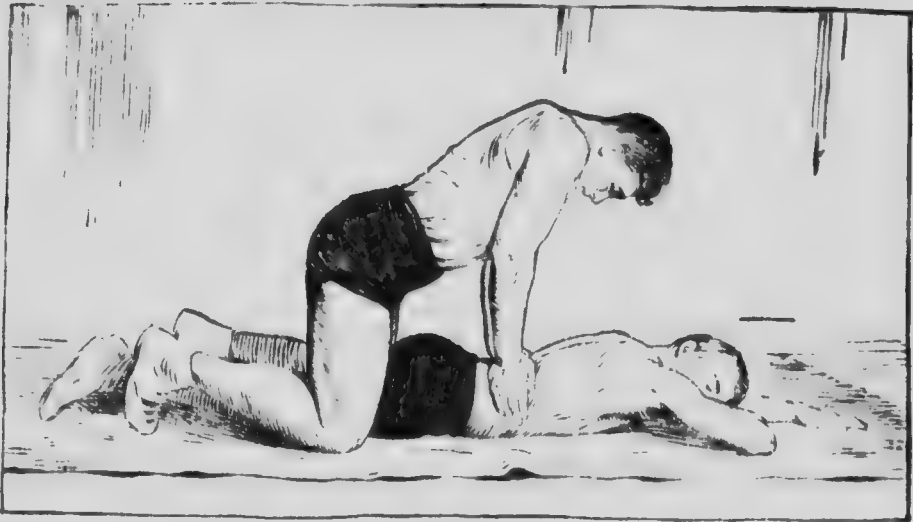


FIGURE 3—*Correct Method of Applying Pressure in Artificial Respiration*

- (j) Do not give any fluid by mouth to an unconscious patient. When he is conscious, he may be given hot, strong, black coffee. Do not give him whiskey or brandy. Keep him warm. Keep him quiet and lying down.

2. **Dangerous Bleeding**—See treatment of Hemorrhage, page 20.

3. **Shock**—Most serious accidents, and many trivial ones, are accompanied by some degree of "surgical shock." It is due to depression of the nervous system, which results directly in failure of the blood vessels to maintain proper distribution of the blood supply.

The signs of shock are:

- (a) Skin pale, lips and nails blue
- (b) Body cold and moist
- (c) Pulse weak and rapid
- (d) Patient in stupor and possibly unconscious
- (e) Possibly vomiting or hiccoughs

Unless there is serious bleeding, shock should be treated before anything else is done to care for the injury. Don't talk about the accident and, if possible, prevent the injured person from looking at his wound. Send for a doctor immediately, and then proceed to give emergency relief.

The injured person should lie flat upon his back with the head some-

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what lower than the body, if possible. Keep him as warm as possible, using blankets or heavy clothing, and place hot water bottles or hot bricks or stones near the patient, being very sure that there is no possibility of burning the skin. Under the covers, the legs and arms may be massaged, rubbing toward the body.

Recovery may be stimulated by permitting the patient to inhale aromatic spirits of ammonia, or, when he is able to swallow, by administering a half teaspoonful of aromatic spirits of ammonia in hot water, or by such drinks as hot tea, coffee, milk or broth.

4. Unconsciousness (or fainting)—Find out if possible, the cause of the unconsciousness and then give the special treatment required, as described elsewhere. If you are unable to do this, place the unconscious person in a reclining position, with nothing under his head if he is pale, and with his head on a pillow if his face is red. Send for a doctor as soon as possible.

In case of fits or convulsions, keep the patient as quiet as possible, protect him from injuring himself, place something in his mouth (a stick) to prevent tongue biting, and send for the doctor.

5. Moving the Patient—Move a badly injured patient only when it is absolutely necessary. When he must be carried, this should be done with the greatest gentleness, and without jarring him. Severely sick or injured persons should be carried lying down on some kind of a stretcher. Take no chances on this. A convenient way to carry a patient at home is in a strong kitchen chair. The patient is seated in the chair. One bearer takes hold of the front legs of the chair, the other of its back, and it is tilted back so the patient is partly lying down.

INJURIES—PREVENTION AND TREATMENT

Injuries due to violence to the skin, bones, or blood vessels are for the most part preventable, especially those which occur in the home. Falls are the most common cause of broken bones; there should be few of them if your house is well ordered, with everything in its place. Repair insecure stairs; protect children by having guards outside high windows and gates on stairways; test ladders before using them; don't use boxes, tables, or rocking chairs for ladders; sprinkle sand or ashes on icy walks and steps. Boards carelessly thrown aside with the nails sticking upward may cause

dangerous wounds. Tacks or broken glass should always be swept up. When opening bottles or cans, watch what you are doing; severe cuts are sometimes due to broken bottles. The jagged edge of a tin can may cause a wound which is liable to become infected.

INJURIES WHERE THE SKIN IS NOT BROKEN

1. Fractures (Broken Bones)—How do you know that a bone has been broken? You have seen, or the injured person tells you, that he has had a fall or blow. He complains of pain at the point of the fracture, and there is tenderness and often swelling or deformity there; he cannot move the injured part. From these signs you cannot be sure that the injury is a fracture, but it is better to treat it as such than to make any further examinations which might cause movements of the sharp ends of the broken bone and thus do further damage to the soft tissues.

Send for a doctor at once. Treat shock if it exists (see page 13). This is more important than the fracture. Cut off the clothing from the injured part and determine whether the skin has been broken at the site of fracture. If there is a break in the skin, the case is far more serious—you are dealing with a wound as well as a fracture. Follow treatment described on page 18 for wounds, and treat the fracture only after that has been done. Whether the skin is broken or not, your main object is to keep the parts of the broken bone from moving. If the limb is allowed to bend at the point of fracture, the sharp knifelike edges of bone will do further damage to the soft tissues. If the doctor is coming soon, and you do not have to move the person, carefully place the injured limb in a comfortable position on a pillow. If the doctor's coming is delayed, or if the person must be moved, you should try to set the fracture and hold the bone in position by splints.

To set the broken bone, put it into the same position that it had before the break occurred. Do this by comparing it with the uninjured part on the other side of the body. This should be done very gently; if you are causing a great deal of pain or if the patient resists, it will be safer not to go further, but to hold the limb in its present position by splints. Do not try to set a fracture in which the bone ends stick through the skin. Simply treat it as a wound and keep it from moving by splints. Any long rigid piece of material may serve as a splint. While a flat board is best, canes, umbrellas, broom handles or wire netting, may be used. (The splints

should be long enough to extend beyond the joints above and below the injury). A wide splint is better than a narrow one, for then the bandages make less pressure on the limb. A thick padding for the splint should be made of any available cloths or clothing.

The splint should be bandaged to the limb by any handy strips of cloth. These bandages should be firm, but not tight enough to cause pain or stop the circulation. Make repeated examinations of the hand or foot of the broken limb, and if they are cold or blue, remove the bandages and reapply them more loosely. Swelling may occur after the bandages have been put on, so that a bandage which at first was not too tight, may later stop the circulation and cause gangrene and loss of the limb. The proper splinting for the more common fractures is shown on the opposite page.

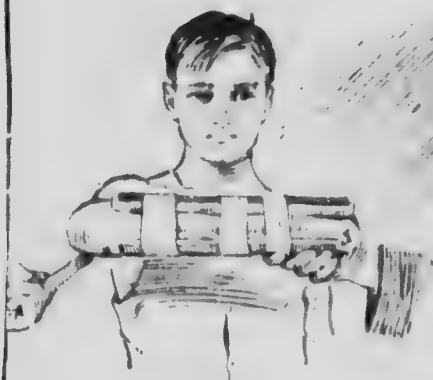
A sling for a broken arm or collarbone is made of a diagonally folded piece of cloth about two and one-half feet square, adjusted as shown on page 19. The two long points are tied behind the neck; the middle point may be pinned across the front piece, thus supporting the elbow and keeping the arm from slipping out of the sling.

If the patient has hit his head and seems stunned or even unconscious, there may be a fracture of the skull. A doctor's help is needed at once. Disturb the patient as little as possible; do not move him unless it is necessary. Do not give stimulants.

2. Dislocations—When a bone gets out of place at a joint, the injury is called a dislocation. The joint looks out of shape when compared to the similar joint on the other side of the body and its motion is limited. There is much pain from pressure on nerves. Send for a doctor at once. Attempts by unskilled persons to fix the joint may cause very serious additional injuries. Treat shock if it is present (page 13). Place the patient in a comfortable position and apply cloths frequently wrung out of very cold water, to the joint.

The only dislocation which you may safely treat without a doctor's help is a dislocation of a finger joint (except the second joint of the thumb). Face the injured person and pull the end of the finger toward you. With the thumb and forefinger of your other hand, gently press on the dislocated joint until it slips into place.

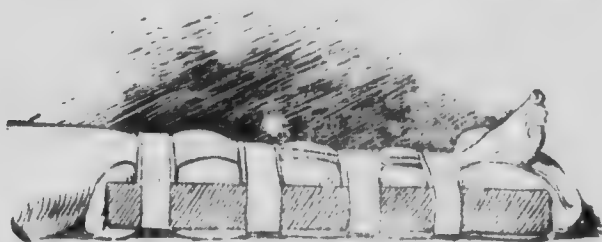
3. Sprains—A sprained joint is usually due to a sudden turn or a pull. No bones are broken or out of place, but the cords which attach the



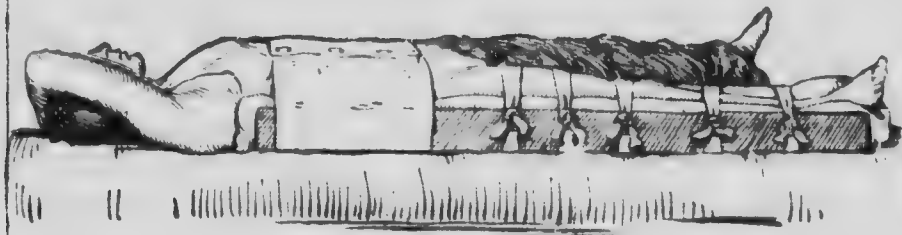
*Splint for broken forearm
or wrist*



*Splint for broken
upper arm*



Splint for broken lower leg



Splint for broken thigh

muscles to the bones are torn. There is severe pain in the joint, increased by motion and there may be much swelling and discoloration. If the sprain seems at all severe, or if you think there may be a fracture, send for a doctor. Treat shock if it is present (page 13). Raise the injured joint so that it will get less blood. Apply cloths wrung out of very cold water; change these frequently for several hours. Prevent motion of the joint. If the injury is of the lower limb, the patient should not be allowed to walk.

4. *Strains*—This is like a sprain, but here it is the muscle which is injured. Rest and light massage (rubbing the limb upward toward the body) will give relief. When pain subsides, deeper and firmer massage may be used.

5. *Bruises*—The pain of severe bruise may be relieved by raising the part and applying cloths wrung out of cold water.

A black eye is a bruise and should be treated as such with cold applications. If treatment is not begun until the skin has already become black and blue, hot water applications for half an hour, three times a day will hasten the disappearance of swelling and discoloration. If the blow was severe, have a doctor examine the eye.

INJURIES WHERE THE SKIN IS BROKEN

Whenever the skin has been broken, we call the injury a wound. There are two dangers from wounds, hemorrhage and infection. In most wounds, hemorrhage is slight; in every wound, even the smallest scratch, there is some possibility of infection which may occasionally lead to blood poisoning. In larger wounds, especially if they are deep, or if they have bits of clothing, pieces of wood, or dirt in them, infection is more likely to occur, and if it occurs, to lead to blood poisoning. An infected wound after the first few hours gets red, swollen and painful. If blood poisoning develops, the swelling and pain spreads, and the patient may have chills and fever and be very seriously sick.

1. *Infection*—What causes wounds to become infected? Germs. Germs are living on our skin, especially the skin of our hands, on clothing, dirty knives, and in water. Among all these germs there may be some that are deadly. However, they usually do little harm unless they are brought into contact with a wound. Some germs will be driven into the body in every

wound, but our white blood cells can fight them off if there are not too many. Our chief object in treating wounds is to prevent the entrance of more germs.

Do not let anything which may have germs on it touch the wound.

*First Treatment: Application
of Bandage to Control Motion
a Compound Sling*



*Completed sling as described
on page 16*

Do not touch it with your fingers, though they have been washed and look clean. Nothing should touch the wound except a piece of clean white cloth which has been sterilized. By sterilization is meant the killing of germs, usually by means of prolonged heating. Every home should have on hand dressings of sterilized gauze. If there is no such dressing at hand, take a piece of clean cloth and iron it with a hot flat iron for several minutes, or boil it in water for ten minutes, and wring out, being careful not to let anything touch the part which is to come in contact with the wound. To wash small cuts, use pure soap and clean water which has just been boiled and allowed to cool to a comfortable temperature. Water thus sterilized may be used to wash out any dirt or bits of clothing which may be in a wound. It will make the wound bleed more, which will help to cleanse it.

If you have some Tincture of Iodine ($3\frac{1}{2}$ per cent.), pour a little into the wound, taking up the excess with a piece of sterilized cloth. Paint the surrounding skin with iodine. Do not use peroxide; if it stands for a time it may even contain germs; its bubbling is not a sign that the wound is being cleansed.

Cover the wound with a sterilized dressing, being sure that nothing has touched the part of the dressing which is to come in contact with the wound. Keep the dressing in place by a bandage or adhesive tape.

All serious wounds should be shown to a doctor as soon as possible.

If a small deep wound has been caused by a rusty nail, wire or splinter, try to make the wound bleed by squeezing the surrounding skin (being careful not to touch the wound). The blood will flush out some of the germs which have been carried deep into the tissues. Do not suck such a wound or try to poke iodine down to the bottom of it—you may do more harm than good. No matter how harmless this kind of a wound looks, you should take the patient to a doctor as soon as possible, for there is danger of the deadly tetanus poisoning (lockjaw). This is especially true of Fourth of July injuries.

2. Hemorrhage—There is the danger of serious bleeding in many wounds. In this case, everything must give way to stopping the bleeding or death may occur. There are three kinds of bleeding, depending upon the kind of blood vessels from which the blood comes. From the fine capillaries the blood oozes slowly, and can be stopped by the pressure

of the dressing. This is also the case with all except the largest vein. Arteries remain open, however, and from them a considerable amount of blood will be lost in a short time. This blood is bright red, and is thrown out in spurts with each beat of the heart, while with the veins and capillaries, the flow is steady and of a darker color.

The only veins in which it is likely to prove difficult to stop bleeding are those of the neck, and enlarged veins of the legs called varicose veins, which sometimes burst. No time is to be lost if bleeding is from the large veins of the neck. At once put your fingers on the bleeding points and press on the vein to stop bleeding. Send a hurry call for the doctor. If possible, keep your fingers on the bleeding point until he arrives. If you cannot do this, do not remove the pressure until gauze or cloth has been stuffed into the wound to replace your fingers.

Varicose veins are not so bad as this, but bleeding from them is alarming and dangerous. A doctor is required. The patient should lie flat on his back with his head low, all bands around the leg should be removed, and it should be raised so that it is at right angles with the body. The usual dressing of gauze and a bandage should be put firmly in place over the bleeding part.

Bleeding from the arteries is most serious. The amount of blood lost depends on the size of the artery. If the stream of blood is a really fine one, the pressure of the dressing will stop it. In large arteries, this plan will not succeed. If a great deal of blood is being rapidly lost, one is justified in forgetting about infection and putting his finger directly on the bleeding point in the wound, afterward replacing this with enough gauze to maintain the pressure. Arteries are like a hose, and pressure on the hose or artery at any place nearer the source of supply, or the heart, will stop the stream flow. You must find a place where you will have something hard to press the artery against. In the arm, this is in the middle of the upper arm, just on the inner side of the big muscle. In the leg, it is not so easy to find. It is high up on the front of the thigh, midway between the point of the hip and the center of the crotch. Pressure here back on the bone will stop bleeding from an artery below. Make pressure first with the fingers. They will tire quickly and must be replaced by what is called a tourniquet. This is an apparatus which has a pad to put on the artery and a strap over the pad encircling the limb. By twisting, the strap is tightened and presses

the pad down on the artery, thus checking the flow of blood. Make your strap of a towel or handkerchief. The ends should be tied together so as to encircle the limb. Any hard pad, of the size of an egg or a little larger or smaller, will do. This should be put in the towel to rest over the artery. A darning ball makes a good pad. Pressure is made by putting a stick in the loop of the tourniquet at the outside and twisting. (*See page 23*).

A rough method of stopping bleeding from arteries at any point below the knee or elbow is to put a pad in the bend of the knee or elbow and to bend the leg or arm at the joint as close as possible so that the pad will be firmly squeezed. The bent limb must then be tied in this position. Neither tourniquet nor pad should be left in place over fifteen or twenty minutes, for, by cutting off the circulation, it may cause gangrene of the limb below. Whenever they are used, get a doctor as soon as possible and use neither, except for bleeding from a large artery.

Do not give stimulants until the bleeding has been stopped, unless necessary as shown by extreme weakness, pallor, fainting, or gasping for air. Stimulants increase the force and power of the heart, and thus increase the blood supply, thereby making it more difficult to stop the bleeding.

FOREIGN BODIES

Foreign bodies, such as splinters, pieces of clothing, or gravel, which become lodged under the skin are certain to carry germs in with them. Even if these germs are destroyed by the body cells, the presence of the foreign body will keep up an inflammation. Such objects should be removed at once; if they cannot be readily pressed out, they should be extracted by a doctor.

Foreign bodies, which become lodged in the eye or in any of the orifices of the body—the nose, ears, or throat, may cause great distress.

A Foreign Body in the Eye—Don't rub the eye. Close it, and the tears may wash the speck out, or into view, so that it can be removed. Wash with boracic acid solution. If this does not succeed, close the eye and blow the nose hard. Pull the upper lid down over lower, seizing upper eye lashes. If still unsuccessful, look at the lower lid, turning it down gently. Remove speck with the corner of a clean handkerchief. It may, however, be on the upper lid, or the surface of the eyeball itself. To remove specks



Correct way to apply tourniquet to stop bleeding from arm, described on page 22

from these locations is a difficult procedure. It is usually best not to try it yourself. If the condition is very annoying and painful, soak some soft cloth in cool water and bandage this in place on both eyes, before you send for a doctor. Always send for a doctor when the eyeball is injured.

When a speck has been removed from the eye, the latter will be soothed by a couple of drops of castor-oil. If acid has entered the eye, neutralize with baking-soda and water. Lime or any other alkali should be neutralized by weak vinegar solution in water.

A Foreign Body in the Ear--Children sometimes put shoe buttons or other small articles into the ear. Have a doctor remove them. You would be likely to do serious injury if you tried. If an insect enters the ear, drop in a few drops of castor or sweet oil; the doctor can syringe it out later. The practice of removing wax with all sorts of sharp instruments poked in

deeply is a dangerous one. It may result in making a hole in the eardrum and may cause partial or total deafness.

Foreign Body in the Throat—A particle of food or a fishbone may become lodged in the back of the throat or further down, in the esophagus (the food passageway) or the windpipe. Children may swallow all sorts of small articles, such as safety pins, marbles, etc. Place the patient in a chair facing the light, open the mouth and hold the tongue down with the handle of a teaspoon. It may be possible in this way to see the object and to extract it with a forceps, or by hooking the finger around it. If this fails, hold up the patient, if a child, by the heels upside down and slap him vigorously on the back, that the object may be dislodged and fall out. Have an adult lie crosswise on a bed on his abdomen with his head and shoulders hanging over the side. Send for a doctor at once if these measures do not work. If the patient has swallowed some sharp article like a piece of broken glass or a pin, encourage him to eat as much as possible for several days of mashed potatoes and bread. These will surround the foreign body and prevent it from injuring the intestines. Give no laxative for several days. Watch the bowel movements until the object has been passed.

Things in the Nose—Shoe buttons are often pushed into the nose by children, as well as into the ear. There is no danger in your removing them from the nose if they can be seen, and little force is necessary.

FIRE

Many home injuries are caused by fire or boiling water. Children should not be allowed to play with matches, to carry lighted lamps, or to take pots or pans containing boiling water from the stove. Cleaning gloves with gasoline in the presence of a light has caused many explosions and fires. Clothing hanging before a fire may catch fire when it gets dry. Putting lighted lamps under shelves has resulted in the loss of many homes.

In case a fire starts in a room, close all doors and windows to prevent a draft. Give the alarm promptly. A few pails of water thrown on at first may do more good than thousands of gallons later. A blaze may often be smothered with a rug or blanket. If the clothes catch fire, lay the patient flat on the floor at once; running about fans the flames, which tend to burn upward toward the face. Smother the flames with a heavy coat, rug or blanket, if water is not at hand.

Burns or Scalds—Burns are caused by dry heat and scalds by moist heat. With both, the injury may be very shallow, skin-deep only, or very deep, down to the bone. Shock is often severe.

All burns which are very deep, covering a good deal of surface, or in which shock is severe, require the services of a physician. First of all, treat shock (see page 13) if it is present. Then try to stop the pain by protecting the burn from the air. Good remedies are a paste made of baking-soda and water, carbolyzed vaseline, olive oil, or any grease like lard—even cream. Put one of these substances on the burned part, cover with a piece of cloth, and bandage or tie in place. Surgical gauze may be used for the cloth, but this is not necessary. Do not break blisters. In burns from strong acids or alkalis, wash off as quickly as possible. For acids, neutralize with baking-soda in water or soap-suds; for alkalis, use vinegar or lemon juice. Afterward treat like other burns.

Sunburn—is like any other mild burn, and should be treated accordingly. Baking-soda and water, or cold cream lessen the discomfort.

SUNSTROKE AND HEAT EXHAUSTION

A person who has been exposed to great heat, either from the sun's rays or in a hot room, may be affected in either of the following ways, which require opposite treatment.

1. The face is flushed. The patient may be delirious. There may be vomiting or convulsions. Breathing appears difficult. This is called *sunstroke*, or *heatstroke*. The person often falls into a deep unconsciousness and may die before help can be given.

Treatment—Give cooling treatment. Remove patient to a cool, shady place. Loosen tight clothing. Sponge face and chest with cold or iced water. If possible, put him in a cold bath or apply ice cap to head. Send for a doctor at once.

2. The face is pale and cold. The patient feels weak and may faint. His pulse is weak and rapid. This is called *heat exhaustion*.

Treatment—Give stimulating treatment. Remove to a cool place. Hold some strong ammonia near the nose. Give a tea spoonful of hot coffee or half teaspoonful of aromatic spirits of ammonia in a little water. Rub the skin. Place hot water bottles at the feet and cover the body with blankets. If patient does not recover rapidly, send for a doctor.

ELECTRICITY

1. **Electric Shock**—*Prevention*—Never touch a broken or sagging wire. Do not attempt to repair electric fixtures yourself.

Treatment—Get the patient out of contact with the wire (or third rail) without getting shocked yourself. While he is still in contact with the wire, it is as dangerous for you to touch his flesh as to touch the wire itself. If his coat is dry, you may grasp it and thus drag him away from the wire. Or remove the wire by a dry wooden stick. While doing any of these things, you should stand on a dry board, or a folded dry coat or newspapers, and should wrap your hands in several thicknesses of dry cloth or newspaper. If you are near the power house or switch, have the current turned off.

If the patient who has been removed from the wire is not breathing, start artificial respiration (see page 11) at once as described under "Patient not Breathing." Send for the doctor.

2. **Electric Burns**—The skin is severely burned where the electric current goes through it. When the patient is in shock, disregard the burn until the general condition is improved. Then treat as for other kinds of burns. In any electric burn, even if the patient is not shocked, send for a doctor, for the current may have caused internal injuries.

POISONS

1. **Gas Poisoning**—The most common cause is illuminating gas. *Prevention*: A gas burner should never be turned down low and allowed to burn all night, as the flame may be extinguished by a change of gas pressure or a slight draft, thus allowing the room to become filled with gas. In entering a room which is full of gas, to remove a suffocated person, take several deep breaths of pure air outside and spend as little time in the room as possible.

There is present in illuminating gas and in the exhaust from automobiles, mixed with other gases, a poisonous gas called carbon monoxide. This poison is itself colorless and practically odorless, and so cannot be detected by sight or smell. The gas suffocates its victim by taking the place of oxygen in the blood, and the recovery of the victim depends upon the replacement of the poison with oxygen.

This poison called carbon monoxide is given off in such large quantities by automobiles, that the air in a small closed garage will be very

dangerous after the engine has been running less than five minutes. No one should ever run an automobile engine in a small garage without having all the ventilation possible, neither should any one work under a car with its engine running unless for a very short time, and then with an assistant near. Deaths have occurred in closed cars, warmed by the heat from the engine, due to the exhaust gases leaking through.

Many deaths have been due to the careless use of cooking stoves, to leaky gas tubing, to loose gas fixtures and valves, to furnace gas and to gas heating stoves and water heaters improperly adjusted and not connected to flues.

Treatment—Get the patient into the fresh air, but don't carry him far. Send for a doctor. If the patient is in a stupor, but still breathing, sprinkle a few drops of ammonia water on a handkerchief and allow the patient to take one breath with this under his nose, once a minute. If he can swallow, give him half a teaspoonful of aromatic spirits of ammonia. Rub arms and legs briskly toward the heart. If breathing has ceased, begin artificial respiration (see page 11) at once and continue until patient is breathing well. The patient should then have a long rest in bed under the doctor's care.

2. **Chemical Poisons (Foods)**—In very sudden and severe illness, especially with vomiting and bad cramping pains, the possibility of poisoning must be thought of. Possibly the bottle or glass from which the poison has been taken may be found. In cases of food-poisoning, all who have eaten the same food are likely to be affected. Send for the doctor at once. If you can, let him know what poison has been taken, so that he can bring the proper antidote. Cause vomiting. Mustard and water, salt and water, and syrup of ipecac will do this; that is, they are all good emetics. Don't worry about the exact dose, but give it quickly. Have the poisoned person drink large quantities of lukewarm water, so that, by vomiting, all the poison will be washed out of the stomach.

3. **Poisoning from Animals**—(a) *Snakebites*—Do not delay. Get at the wound, by cutting clothing if necessary and immediately tie the limb between the wound and the heart, making a tourniquet as described under treatment of *Hemorrhage* (page 20). Send for a doctor. With a small clean penknife, which has been held in a flame if possible, enlarge the wound, causing it to bleed freely. If you have no cracks or sores in your mouth,

or on your lips, suck the wound. Then cauterize the wound thoroughly with some carbolic or nitric acid on a match stick or with a heated nail or wire. After the tourniquet has been on for fifteen or twenty minutes, it must be loosened so that the limb will not die from lack of blood. After one minute it should be tightened up again for twenty minutes, after which it is again loosened for two minutes. This is kept up for several hours, so that only a small quantity of the snake poison in the limb can get into the general circulation at one time.

(b) **Dog Bites**—If hydrophobia is suspected, treat the wound in the same way as for snakebite, but do not suck. The patient should later receive the Pasteur Treatment. Send for a doctor at once. Do not kill the dog. If he is killed it may be impossible to find out whether or not he has hydrophobia. It is better to take the dog to a Public Health officer to be observed. If he remains well for fourteen days, he probably is not mad, and there is no danger from the wound except that of the more ordinary kinds of infection. If the dog has been killed, however, cut off his head, pack it in ice and send it by express to the nearest State Medical Laboratory for examination.

Bites of other animals should be treated in the same way as other wounds.

(c) **Insect Stings**—If you can see the sting in the flesh pull it out. Apply ammonia water and later cloths wet in cold water.

4. **Ivy Poisoning**—First wash off with soap and water, then with alcohol. Then a dressing kept soaked in cold soda bicarbonate solution, bandaged on the affected part will relieve pain and itching and help to prevent the spread of the poisoning to other parts of the body. If you have a bad case of ivy poisoning, consult your doctor.

FIRST AID MATERIALS

In every home there should be certain first aid materials and medicines, carefully selected, carefully labelled, and kept in a cabinet made for the purpose. This cabinet should be placed well out of the reach of children. Medicines prescribed by a doctor should be kept here and not left standing around the house; when the special need for which they were prescribed is passed, such medicines should be thrown away. The following articles should be kept always on hand:

First Aid Outfit—Including sterilized gauze for wound dressings, gauze bandages to hold dressings in place, etc. A packet of individual first aid dressings, including small compresses with bandages attached, will be found very useful.

Alcohol—(For rubbing), six ounces. Use externally to relieve the pains of sprains, strains, bruises, and to refresh the skin during an illness.

Aromatic Spirits of Ammonia—Two ounces. One-half teaspoonful in some water for faintness.

Boric Acid—Four ounces. Dissolve $2\frac{1}{2}$ teaspoonfuls in a glass of hot water and use as an eye wash.

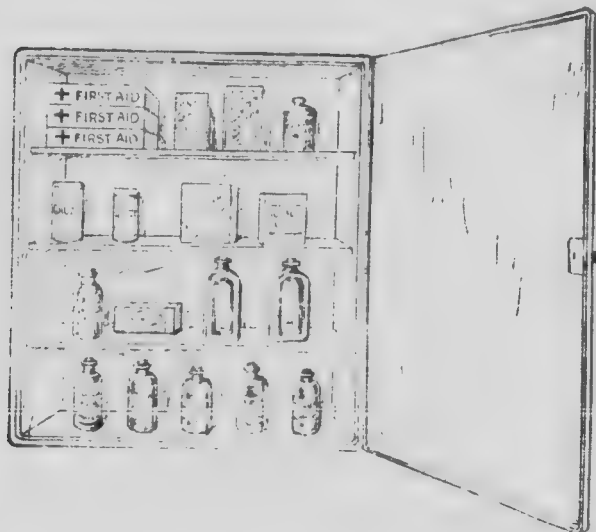
Carbolated Vaseline—One tube. For external use, in treatment of burns.

Castor Oil—Eight ounces. Dose—one to two tablespoonfuls.

Oil of Cloves—For toothache.

Tincture of Iodine— $3\frac{1}{2}$ per cent. For wounds.

Syrup of Ipecac—Dose, one teaspoonful, followed by a drink of warm water, to cause vomiting.



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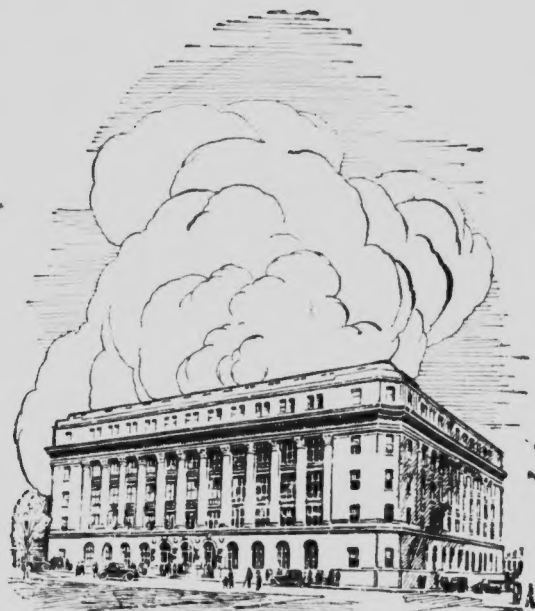
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Life Saving Consists of Doing the Right Thing at the Right Time

In case of accident or sudden illness, consult this index, carefully read the instructions referred to, keep calm and give the treatment suggested until the doctor comes.



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